

REMARKS

Claims 1-6 and 19 are pending in the above-identified application. Support for the changes to claim 1 is found, for example, at the top of page 4 of the specification as well as in the illustrated example shown in Figure 2B. Claims 2 and 6 have been amended so as to be consistent with claim 1.

It is requested that all of the above-noted changes to the claims be entered under 37 C.F.R. 1.116, since the changes to claim 1 merely clarify a feature which has already been considered by the Patent Examiner. Further, the changes to the claims cancel claims 7-18 which removes several issues and removes the basis for two entire rejections so as not to increase the number of issues being considered. Thirdly, these changes to the claims at least place the claims in better form for consideration on appeal, should an appeal be necessary. Therefore, it is requested that all of these changes to the claims be entered of record and fully considered by the Patent Examiner.

Removal of Objection to Claims 4, 5 and 19

Claims 4, 5 and 19 have been objected to under 37 C.F.R. 1.75(c) as being in improper multiple dependent form. Claims 4 and 5 have been amended so as to correctly depend only from other non-multiple dependent claims. Claim 19 now correctly depends from

claim 5. Therefore, it is submitted that the basis for this objection has been removed such that the objection should now be withdrawn.

Issues under 35 U.S.C. §§ 102(b) and 103(a)

Claims 1, 4 and 5 have been rejected under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Suzuki '847 (USP 5,400,847).

Claims 2, 7-9, 11-13 and 15-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki '847 in view of Bormann '307 (USP 4,869,307). Note that claims 7-9, 13 and 17 have been cancelled.

Claims 1 and 6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki '847 in view of Mitsuhashi '218 (EP 1 033 218 A2).

Claims 1, 4 and 5 have been rejected under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Chrobak '497 (USP 3,607,497).

Claim 3 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chrobak '497 in view of Midorikawa '279 (USP 5,591,279).

Claims 7, 11 and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chrobak '497 in view of Iida '532

(USP 6,412,532). Note that this rejection has been removed upon the cancellation of these claims.

Claims 10, 14 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chrobak '497 in view of Iida '532 and Midorikawa '279. Note that this rejection has been removed upon the cancellation of these claims.

Claims 1, 2, 4-9, 11-13, 15-17 and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chrobak '497 in view of Iida '532 and at least one of Suzuki '847 and Mitsuhashi '218. It is noted that claims 7-9, 11-13 and 15-17 have been cancelled.

Claims 3, 10, 14 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chrobak '497 in view of Iida '532 and at least one of Suzuki '847, and Mitsuhashi '2198, and further in view of Midorikawa '279. It is noted that claims 10, 14 and 18 have been cancelled.

All of the above-noted rejections are traversed for the following reasons.

Summary of Position of Patent Examiner in Final Office Action

In the Final Office Action, the Patent Examiner has essentially maintained his position that the claims of the present application are unpatentable over various combinations of prior art references, primarily including Suzuki '847 (USP 5,400,847) and

Chrobak '497 (USP 3,607,497). It appears that the Patent Examiner interprets the last phrase in claim 1 in such a manner as to fall within the scope of the disclosure of Suzuki '847 and Chrobak '497. That is, it does not appear that the Examiner agrees that the phrase, "wherein the thickness of the tape is larger in the cord embedded portion than the other portion," is depicted by Figure 2B as was intended.

As noted below, claim 1 has been amended so as to clarify that the claims include the embodiment depicted in Figure 2B with respect to the thickness of the tape and the embedded cord.

Present Invention and Its Advantages

The present invention is directed to a tape for winding into a tire component, as well as a tire containing the tire component produced by the tape windings. The tape includes at least one embedded cord therein. A feature recited in claim 1 and shown in Figure 2B constitutes a larger thickness in the cord embedded portion. Other features of the present invention include specific cord diameter and tape dimensions. Also, claim 19 recites an embodiment wherein the entire component is the sidewall rubber. The present invention advantageously allows for more convenient handling and dimensional accuracy in tire production as noted at page 1 of the specification.

Distinctions between Present Invention and Suzuki '847

Suzuki '847 discloses radially tires for motorcycles which include a belt cord (11) wound at zero angle or a small angle with respect to the tire equator C so as to be formed from belt ply pieces (7a, 7b, 7c), which are disposed on a carcass (6) having cords arranged at an angle of 70-90 degrees with respect to the tire equator C. Various embodiments are shown in Figures 1-4.

Suzuki '847 fails to disclose or suggest a tape having a larger thickness in the cord embedded portion as recited, for example, in claim 1, as well as other claims directed to various embodiments of the present invention. Suzuki '847 fails to disclose specific cord diameter and tape dimensions as recited in the present claims. Suzuki '847 further fails to disclose employment of the tape in a sidewall rubber component as recited in claim 19, for example. Consequently, significant patentable distinctions exist between the present invention and Suzuki '847 such that this basis for the above-noted rejections should be withdrawn.

Distinctions between Present Invention and Chrobak '497

Chrobak '497 discloses a method of applying a cord-reinforced tread to a tire carcass, in which a continuous strip or ribbon (29) of stock including a series of cords (22) is applied to form a

tread portion (11) with should portions (14, 15) as shown in Figures 1-4.

Chrobak '497 fails to disclose or suggest a tape having a larger thickness in the cord embedded portion as recited, for example, in claim 1, as well as other claims directed to various embodiments of the present invention. Chrobak '497 fails to disclose specific cord diameter and tape dimensions as recited in the present claims. Chrobak '497 further fails to disclose employment of the tape in a sidewall rubber component as recited in claim 19, for example. Consequently, significant patentable distinctions exist between the present invention and Chrobak '497 such that this basis for the above-noted rejections should be withdrawn.

Distinctions between Present Invention and Bormann '307

Bormann '307 discloses a tire having an overlay structure (9) formed of helically wound ribbon (11) with embedded cords (10) therein as shown in Figures 1 and 2. Bormann '307 further discloses that the ribbon (11) has a width of 10-40 mm and a thickness of 0.4-1.2 mm as noted at the bottom of column 2.

Bormann '307 fails to disclose the embodiment of Figure 2B of the present invention wherein the tape has a larger thickness in the cord embedded portion thereof. Bormann '307 fails to disclose

any examples of a tape having an embedded cord, as opposed to at least about 12 embedded cords shown in the illustrated examples. Bormann '307 fails to disclose the cord diameter. Therefore, significant patentable distinctions exist between the present invention and Bormann '307.

Distinctions between Present Invention and Mitsushashi '218

Mitsushashi '218 discloses a rubber tape **9** which includes a central part **9A** having a thickness greater than the "fin" portions **9B** as shown in Figure 3.

Mitsushashi '218 fails to disclose the embodiment of Figure 2B of the present invention wherein the tape has a larger thickness in the cord embedded portion thereof. Mitsushashi '218 fails to disclose any examples of a tape having an embedded cord. Mitsushashi '218 fails to disclose the cord diameter. Therefore, significant patentable distinctions exist between the present invention and Mitsushashi '218.

Distinctions between Present Invention and Iida '532

Iida '532 discloses a tire having a strip member (S) which is formed from an unvulcanized rubber composition member having a width of 5-30 mm and a thickness of 0.5-3.0 mm.

Iida '532 fails to disclose the embodiment of Figure 2B of the present invention wherein the tape has a larger thickness in the cord embedded portion thereof. Iida '532 fails to disclose any examples of a tape having an embedded cord. Iida '532 fails to disclose the cord diameter. Therefore, significant patentable distinctions exist between the present invention and Iida '532.

Distinctions between Present Invention and Midorikawa '279

Midorikawa '279 discloses a tire having short fibers (17) within a tread (13) as shown in Figures 2 and 3. Midorikawa '279 discloses at columns 4-5 that the fibers (17) have an average diameter of "0.05 μm or more" and "more preferably" short fibers having an average diameter of "0.05 to 0.8 μm ".

Midorikawa '279 fails to disclose the embodiment of the present invention of Figure 2B wherein the tape thickness is larger than in the cord embedded portion thereof. Midorikawa '279 fails to disclose any embedded cords which have a diameter as large as 0.3 mm. In fact, Midorikawa '279 suggests short fibers having diameters 1,000 times smaller than the cords employed in the tape of the present invention. Consequently, significant patentable distinctions exist between the present invention and Midorikawa '279 such that this basis for the above-noted rejection should be withdrawn.

Inconsistent Features Preventing Attempt to Combine Cited Documents Together

It is submitted that significant inconsistent features exist among the various cited documents which prevents the attempt to combine these documents together as asserted in the Office Action. First, note that the tire design of Suzuki '847 requires the belt ply pieces (7a, 7b, 7c) to be placed on a carcass (6) having cords running perpendicular to the cords of the belt ply pieces, whereas in contrast, the tire design of Bormann '307 shows that the ribbon (11) includes cords which are disposed basically parallel to the cords of the belt structure (8) below. These completely inconsistent cord orientations prevent the attempt to combine specific features of the cords from each of these documents together.

Second, note that Chrobak '497 fails to disclose any underlying "belt structure" as required by both Bormann '307 and Suzuki '847, such that the relevant features from either Bormann '307 or Suzuki '847 cannot be imported into Chrobak '497.

Third, the attempt to combine the incorrect cord diameter described by Midorikawa '279 or the absence of any cord diameter in Iida '582 undermines the assertion that attempting to combine these documents with Chrobak '497 suggest the present invention.

Consequently, it is submitted that significant patentable distinctions exist between the present invention and each of the above-noted documents whether taken separately or improperly combined.

Conclusion

It is submitted for the reasons stated above that the present claims define patentable subject matter such that this application should now be placed condition for allowance.

If any questions arise regarding the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), the Applicants hereby petition for an extension of three (3) months to January 1, 2005, in which to file a reply to the Office Action. The required fee of \$980.00 is attached to the Notice of Appeal, which is being filed concurrently herewith.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees

Appl. No. 10/020,167

required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Andrew D. Meikle, #32,868

ADM:gmh
0229-0683P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000